

nal gives the following as Mr. Fairbairn's account of the experiments with the Conway tubular bridge:—"With its own weight (1,300 tons), the deflection did not exceed, but was under 8 in. With 300 tons of loaded trucks, the deflection was increased to 11 in.—being, as near as possible, in the ratio of 1 in. to 100 tons of load."—"The viaduct across the Tay, at Perth, for the Dundee and Perth line, is in progress, labourers being busy in driving piles for it at the water reservoir.—London to Paris throughout by steam will forthwith be the route for all visitors between the two first metropolises in the world. The double line from Boulogne to Paris is now laid, with the exception of half a mile, and the directors of the Amiens section have been in London, arranging with our own South Eastern directors about the through traffic with the Continent at large. On and after the 15th March there will be five through trains each way between Boulogne and Paris, an express in 5 hours 20 minutes. An express steamer will be started, and the public will be enabled to breakfast in London and be in Paris to dinner or tea about 8 p.m. *et vice versa*. Arrangements are even being made for 'booking through' all the leading lines on the Continent.—Two guards on the Eastern Counties line were nearly frozen to death during transit lately by night,—another appeal-by-inference to all directors in favour of our own simple 'universal remedy' for all possible contingencies, viz., the conversion of a line of foot-boards or a central gangway as a beat for the proper guards or watchmen of the train.

Miscellaneous.

THE NEW HOUSES OF PARLIAMENT.—The substitution by the printer of a single letter (x for h) in the closing paragraph of our leading article, last week, much interfered with its intention. It should have been, and we are not sorry to repeat it,—"Let us have no undue haste, no unwise stint (at the same time of course no wasteful expenditure—no putting up of work and then knocking it down again), and we shall be able ultimately, and that before long, too, to point to a building unequalled by any contemporaneous structure in the world." Sir Robert Inglis has given notice that he will move, on the 2nd of March, for the appointment of a Select Committee "on the present state of the New Palace at Westminster, with a view to the reception and accommodation of this House therein, and the probable expense of its completion; and also to inquire into the present state of Westminster-bridge;" and Mr. Osborne has given notice that he will move, as an amendment to it, an address, praying her Majesty to appoint commissioners to superintend the expenditure, with a view of making such arrangements as may lead to the completion of the building at the earliest possible moment.

FREE ADMISSION TO PUBLIC MONUMENTS.—A correspondent from Manchester writes as follows respecting the fear we expressed touching Manchester Cathedral, that the churchwardens had taken the very means to prevent the impositions of the tax which we may suppose it was their object to guard against:—"Your readers will be glad to learn that they or any one else, may, at all hours of the day, enter Manchester Cathedral (the old church as we still love to call it, so wonderfully hushed in the midst of such noisy industry) and there may meditate and afterwards pass out without being dunned for fees, either directly or indirectly. The parish have done what every parish should do—asserted their right to unrestricted access to their parish church, and the churchwardens' care is but to see that no damage be done. Extra attendance, and the following notice, makes the plan work admirably. 'Walking or talking in the church during the time of Divine service is strictly forbidden. No fee is required for the door-keeper or apparitors, who are paid by the churchwardens.'

BEDFORDSHIRE ARCHITECTURAL SOCIETY.—The first general meeting is appointed to be held at the library, in Bedford, on the 21st of next month, when Earl de Grey is expected to preside.

THE MACCLESFIELD WATERWORKS AND IMPROVEMENT BILL has formed the subject of a lengthened inquiry before Mr. George K. Rickards, barrister-at-law, and Mr. G. Rennie, civil engineer, surveying officers appointed by the Woods and Forests. The Bill, which was a comprehensive one, involving police and gas regulations, as well as other and sanitary purposes, was met by various opposing interests and counter proposals, especially on one of its main objects, the supply of water to the town. In course of the evidence, it was stated that while 150,000 gallons only per day are at present furnished in dry seasons, the proposed works would have storage room for 971,000 gallons, making in all 1,121,000 gallons per day, chiefly by the enlargement of reservoirs, at a cost of 18,000*l.* in all, pipes, fire-plugs, &c., inclusive. The Bill has been since thrown out.

AMENDING TENDERS?—A short time since we published the tenders delivered to the assignees of Mr. Burton, for the completion of Portsea Barracks, which shewed that the lowest was very considerably under the next lowest amount. Since then, an error having been discovered by the contractors, the assignees have permitted an addition of about 1,200*l.* to be made to the sum named, which has justly excited much disapprobation. On principle, such a course, as we have before had occasion to say, ought to be most strongly objected to, being open to the greatest abuses.

SOUND VISIBLE?—Our contemporary, the *Literary Gazette*, speaks of a method recently discovered by which sound will be made visible! The effects of sound may, of course, be made visible, or even the action which is its cause, but the statement, as put forth, would seem to be a contradiction in terms. *Mais, nous verrons* :—perhaps.

SEWING MACHINE.—A French firm have patented a machine, which will sew, stitch, and make edgings with the same movement. It is said that it will entirely supersede hand sewing!

SOUND FROM BELLS: CLOCK FOR HOUSES OF PARLIAMENT.—Sir: Experimental researches have shewn us that sound is the result of a mechanical vibration of the particles of air, and that this motion is induced by the vibrations of solid and elastic bodies. In all sonorous bodies, there are, however, certain mutually recurring periods at which the sound is more distinct and audible than at other times, producing a swell in the tone, and a corresponding decrease in each space of time between those undulations; this is produced by the following cause. Let us take a string and stretch it between two points and pull it on one side with the fingers: when we let it go it will fly from this side to the opposite, and from that back again, and so on for a number of times, until the power is wasted. Sound is produced in the air by the motion to and fro of the particles in exactly the same way; but if we examine the cord attentively, we shall find that a longitudinal or snake-like motion is produced, passing from one end to the other and from that back again and so on; it is this which, by adding in the lateral vibration, produces the increased sound. Now, let us strike a bell at the exact periods at which those pulsations occur, and we produce the greatest amount of sound from it which can be evolved with the force applied; but let us strike it twice in this time, and we destroy at every second stroke a quantity of sound equal to twice the amount of sound which we hear half-way between the undulation. The only sound we hear is that difference of force between the forward and backward undulation instead of their sum. The knowledge of this fact shews the importance of having a bell whose undulation shall concur with the stroke. I should not have been induced to make the above remark, had I not observed the numberless instances in which this is not attended to. We are now to have a clock which is to surpass all others in magnitude and power. Let the bell be of such a tone, that those vibrations shall always recur in unison with that of the stroke of the hammer; by attending to this, a tone will be produced which may be heard at twice the distance that it would be if not struck in unison with them.

Old Broad-street.

J. S. M.

PROJECTED WORKS, &c.—Tenders have been called for by advertisement for deepening Harwich Harbour; deepening and improving the drainage of the Pow of Inchafray and water-runs communicating therewith—works 9 miles in extent; for the erection of a new church in the Weir district of Bristol; a parsonage house at Blaydon; a wall and balustrade, with vaults, &c., in front of All Saints' Church, Worcester; seven almshouses at Grimesthorpe; new vagrant-wards, work-room, and coal-vaults, at the Aston Union Workhouse at Erdington (by Birmingham); erection and completion of certain wards and buildings at St. Leonard's (Shoreditch) Workhouse; repairs of pavement at Poplar; also for the supply of curb, edging, paving and penning, of best Hanham or other stone, for Bristol Paving Commissioners, and setting and laying same, for three years; and for the supply of 10,000,000 sound bricks at Colney-hatch (brick-earth offered), for the Middlesex Lunatic Asylum; for a pumping-engine 35-horse power, pipes, masonry, earthwork, and pipe laying, at Durham Waterworks; making and erecting a gasholder at Hartlepool Gas and Waterworks; supplying and working the materials for fixing 21 gas-burners, with pipes, &c., in the Greenwich Union Workhouse Infirmary; and for supplying pipes and fittings connected with the baths now building in Orange-street, Leicester-square.

COMPETITION.—Plans and estimates for a new workhouse at Stoneham have been advertised for; premium 50*l.*, or employment as architect.

THE LEAD TRADE.—The lead trade appears to be an exception to the condition of almost every other interest at this moment. The miners of Weardale and Alston Moor are in full employment, and earning good wages, and the price of lead is understood to be remunerative and satisfactory to the various proprietors in those districts. Several very rich mines are being worked at present in Weardale.—*Newcastle Journal*.

LINCOLN LUNATIC ASYLUM COMPETITION.—We have received a copy of a circular, addressed by an architectural firm to the individual magistrates who are to decide, pointing attention to the merit of their wares. Our opinion on such proceedings is too well known to need repetition.

CHELTEMHAM TRAINING COLLEGE.—A correspondent led to go to the spot by a note in our journal, says, that three plans have been selected by a committee; a fourth allowed to slip in, then the four sent back to their authors to be re-arranged! He justly reprobates a course open to at least so much suspicion.

MONUMENT AT CALCUTTA.—It is proposed to erect a column 150 feet high, at Calcutta, to commemorate the victories in the Punjab. The captured guns are to be set up around it in compartments, and it is to be crowned with three figures,—Britannia supported by two native soldiers.

THE OLYMPIC THEATRE.—The architectural scenery, painted for the production of Richard III. at this theatre, is exceedingly creditable to the artist and the management. It embraces the Tower, old St. Paul's, interior of Crosby Hall, and various Gothic apartments.

ABBOT'S LEIGH CHURCH, near Bristol, has been partially destroyed by fire, caused by the overheating of the stove used to warm the edifice. The church is of early erection.

SOCIETY OF ARTS.—On the 9th inst. the discussion on the construction of Greek vases was resumed, and Mr. Scott Russell made some remarks on polygonal decoration, for which we shall find a corner next week.

A LECTURE ON ARCHITECTURE was delivered at the St. George's Instruction Society, in Birmingham, last week, by Mr. Peter Hollins, and drew a numerous audience.

BLIND BUILDERS.—A correspondent sends the following list of tenders for finishing three houses, Albion-road, Dalston:—

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| J. Gleen | £1,012 |
| Reeves and Parish | 1,010 |
| Bennet and Loyd | 1,000 |
| C. Loyd | 989 |
| Smith | 840 |
| Burgess and Moffet | 724 |
| Preedy | 700 |
| Craber | 695 <i>l.</i> |